1/5

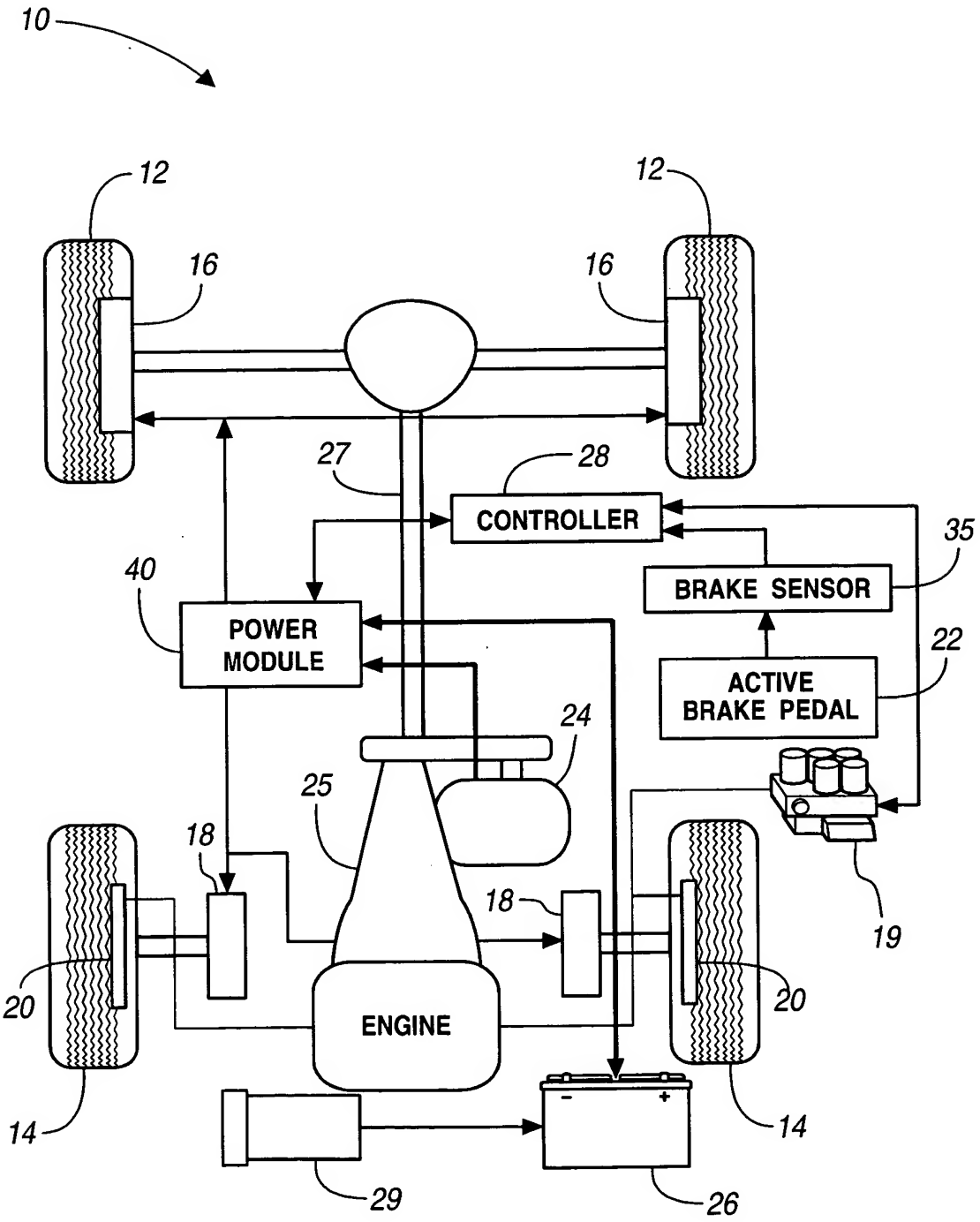
10
12
12
16
16
27
28
CONTROLLER
35
BRAKE SENSOR
40
POWER MODULE
22
ACTIVE BRAKE PEDAL
24
25
18
18
19
20
20
ENGINE
14
14
29
26

FIGURE 1

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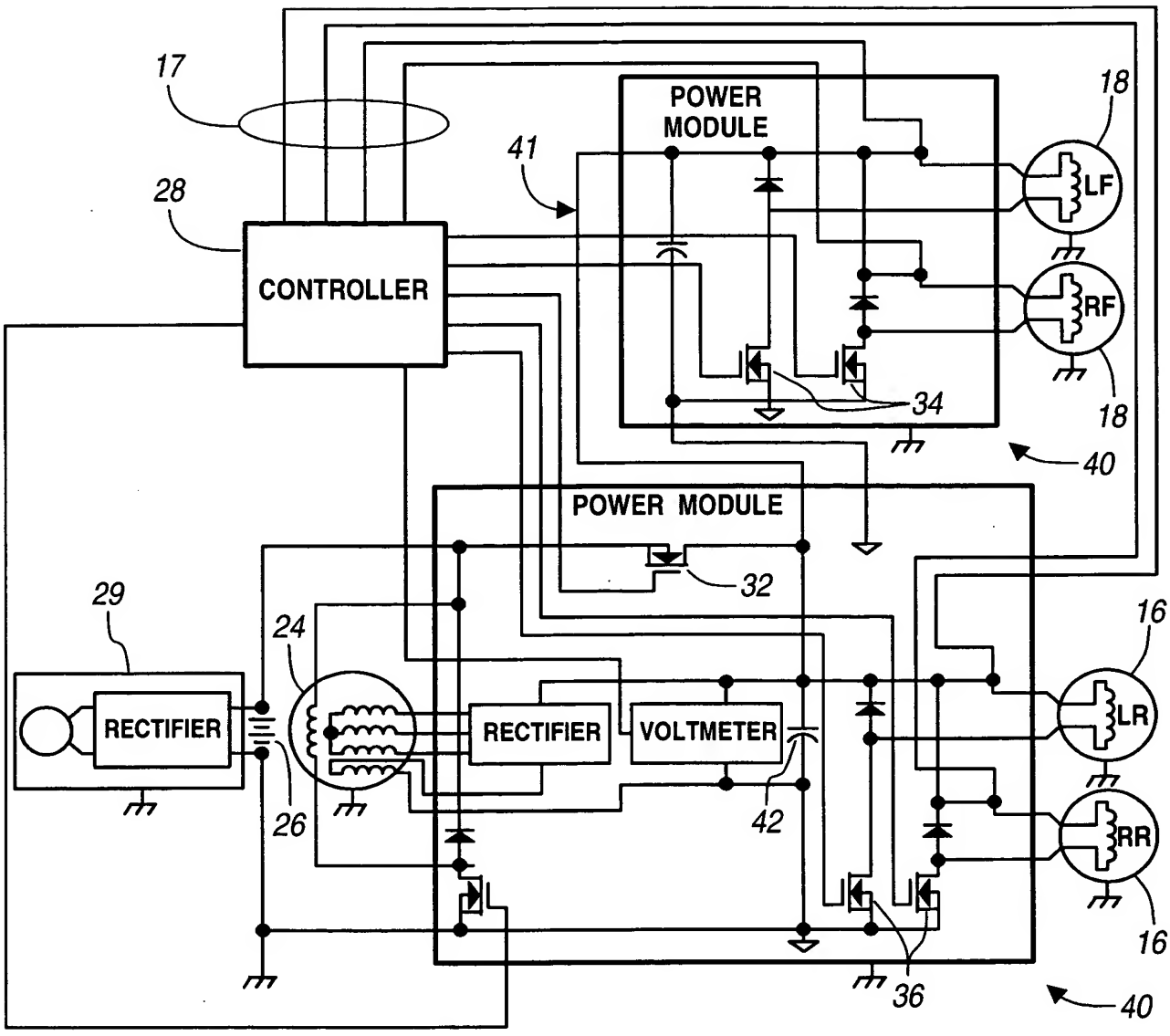
17
18
POWER MODULE
41
28
LF
CONTROLLER
RF
34
18
40
POWER MODULE
32
29
24
16
RECTIFIER
RECTIFIER
VOLTMETER
LR
RR
26
42
16
36
40

FIGURE 2

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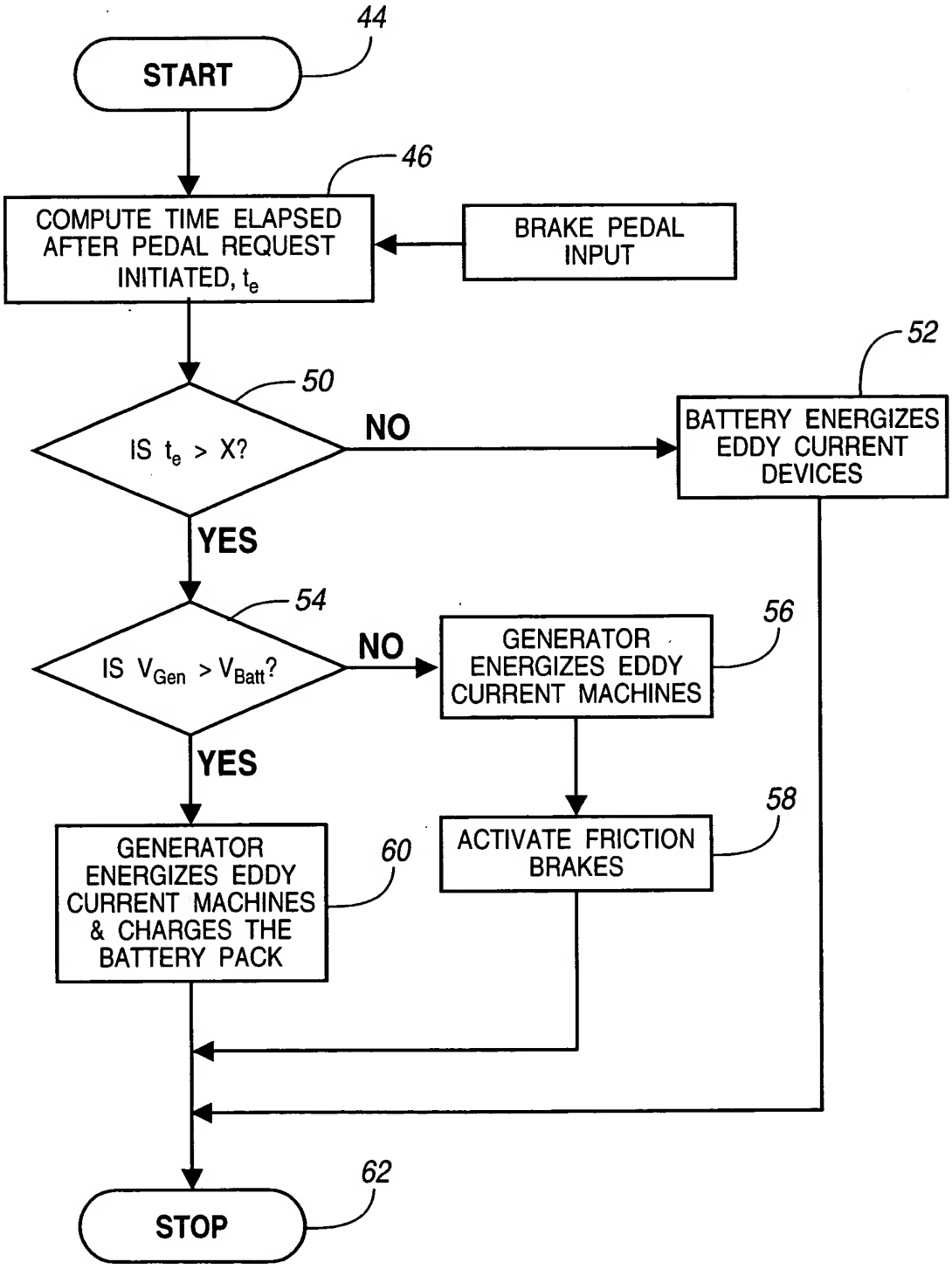
44
START
46
COMPUTE TIME ELAPSED AFTER PEDAL REQUEST INITIATED, t_e
BRAKE PEDAL INPUT
50
IS t_e > X?
NO
52
BATTERY ENERGIZES EDDY CURRENT DEVICES
YES
54
IS V_{Gen} > V_{Batt}?
NO
56
GENERATOR ENERGIZES EDDY CURRENT MACHINES
YES
58
ACTIVATE FRICTION BRAKES
60
GENERATOR ENERGIZES EDDY CURRENT MACHINES & CHARGES THE BATTERY PACK
62
STOP

FIGURE 3

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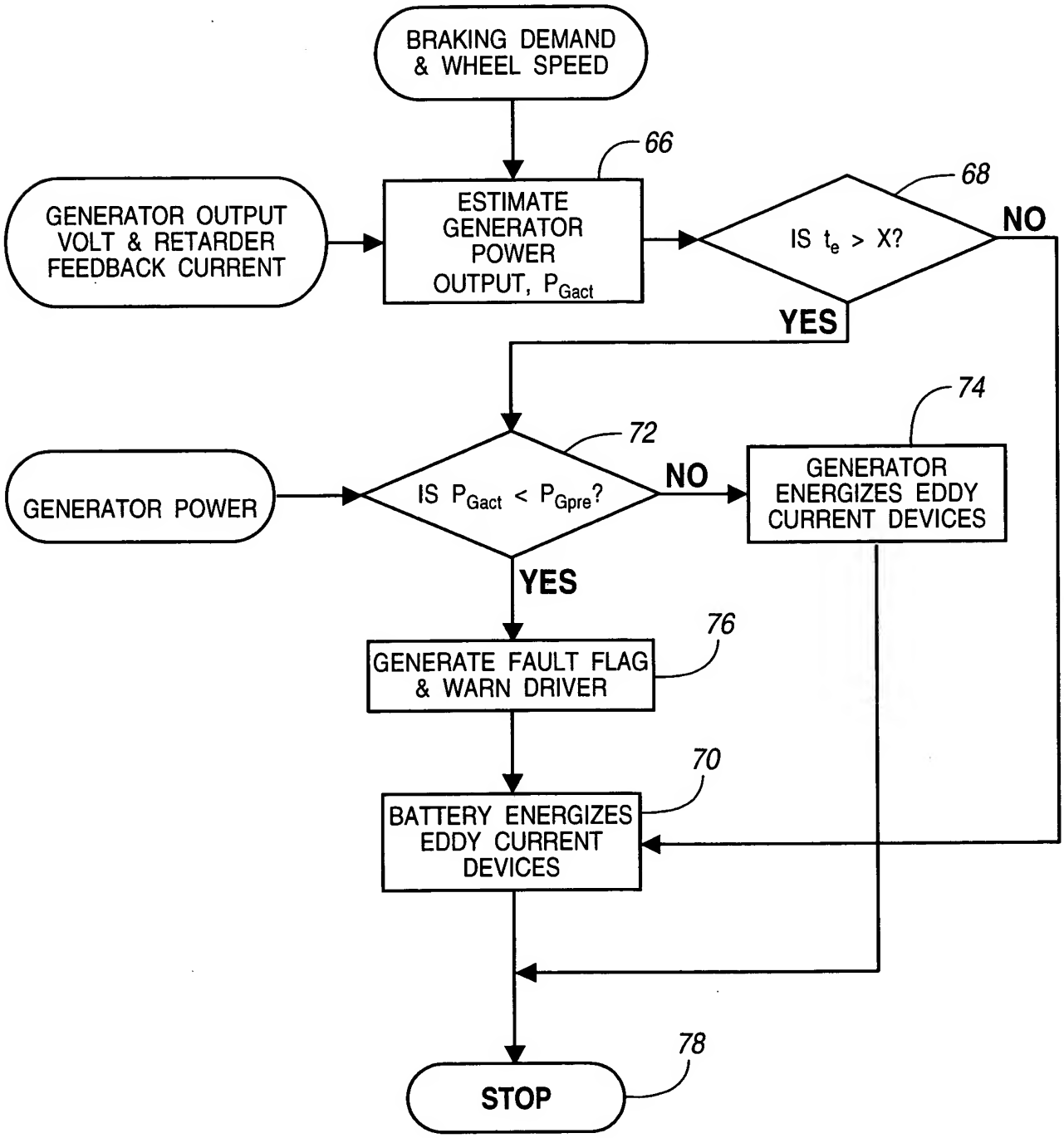
BRAKING DEMAND & WHEEL SPEED
66
GENERATOR OUTPUT VOLT & RETARDER FEEDBACK CURRENT
ESTIMATE GENERATOR POWER OUTPUT, P_{Gact}
68
IS t_e > X?
NO
YES
74
72
GENERATOR POWER
IS P_{Gact} < P_{Gpre}?
NO
GENERATOR ENERGIZES EDDY CURRENT DEVICES
YES
76
GENERATE FAULT FLAG & WARN DRIVER
70
BATTERY ENERGIZES EDDY CURRENT DEVICES
78
STOP

FIGURE 4

5/5

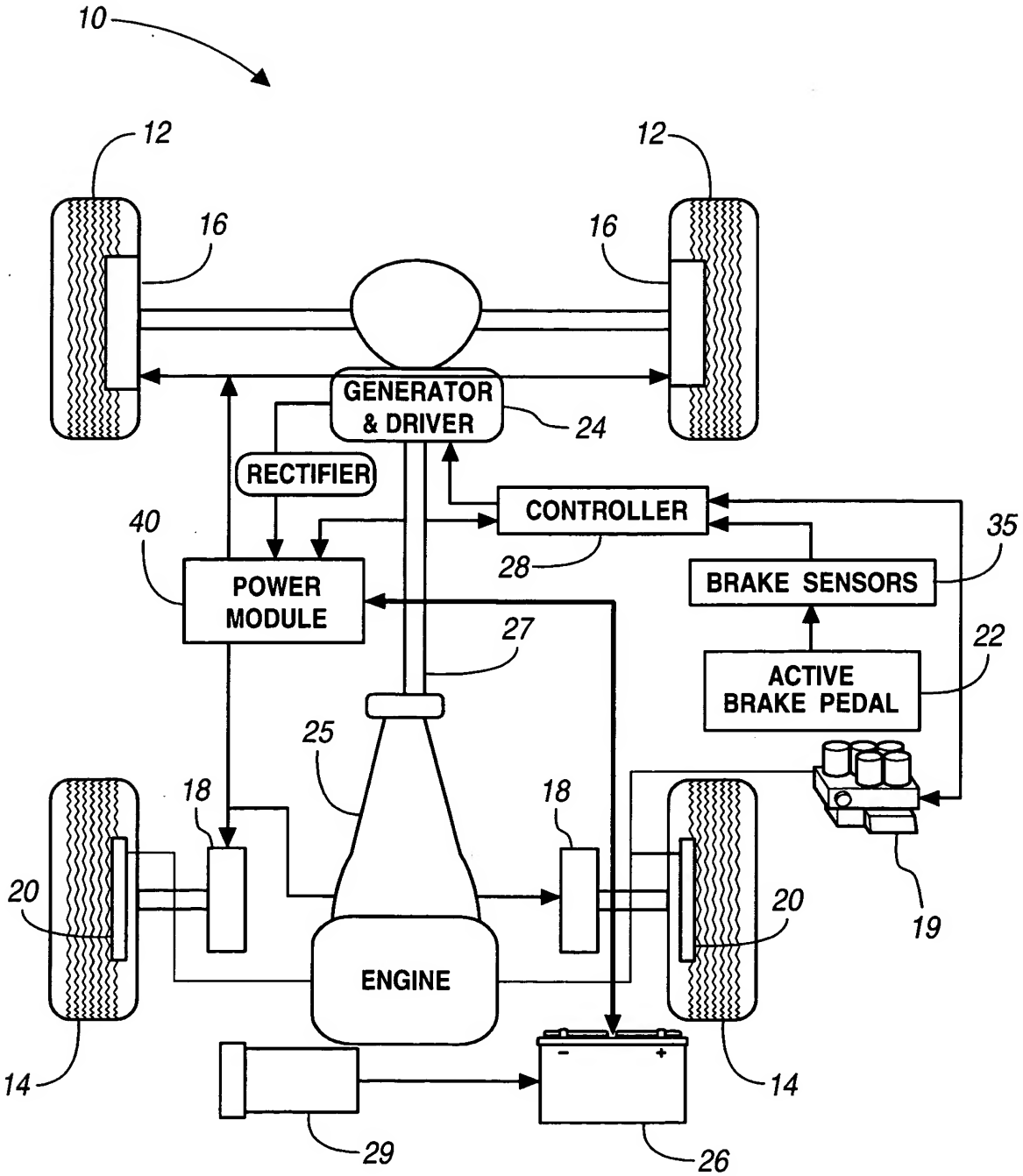
10
12
12
16
16
GENERATOR & DRIVER
24
RECTIFIER
CONTROLLER
40
35
28
POWER MODULE
BRAKE SENSORS
27
22
ACTIVE BRAKE PEDAL
25
18
18
20
20
19
ENGINE
14
14
29
26

FIGURE 5